

**South Main
403 South Main**

**Rolesville, NC
Wake County**

Pipe (Q25) HGL Calculations

September 29, 2022



Prepared for:

**Toy Storage, LLC
2700 Gresham lake Rd.
Raleigh, NC 27615**

**27. - Please include DA and
impervious for pre-development**

South Main HGL Analysis

Project Name: South Main

Project Address: 403 South Main Street
Rolesville, NC

Pins: 1758784708

Latitude: N 35.916120
Longitude: W -78.468430

Zoning: GC

River Basin: Neuse

Watershed: Milburnie Lake

HUC: 0302020107

Developer: Toy Storage, LLC
2700 Gresham lake Rd.
Raleigh, NC 27615

Telephone: (919) 604-0505

Email: Storit@AOL.com

Site Description

The project consists of a single parcel located at the intersection of Wall Creek Drive and South Main Street in downtown Rolesville. The lot is approximately 1.80 acres (78,408 sq feet) and a portion of an adjacent lot on the south property line will be used for the BMP. The parcel is vacant with grassy vegetation with approximately 4195 sq ft of impervious area. The project will consist of a 13,500 sq. feet commercial building.

The site is in the Neuse River Basin, Milburnie Lake Watershed and subject to those rules regarding nutrient management and post storm water runoff.

The parcel is not located within a flood zone as noted per FEMA map 3720175800K, Dated July 19, 2022.

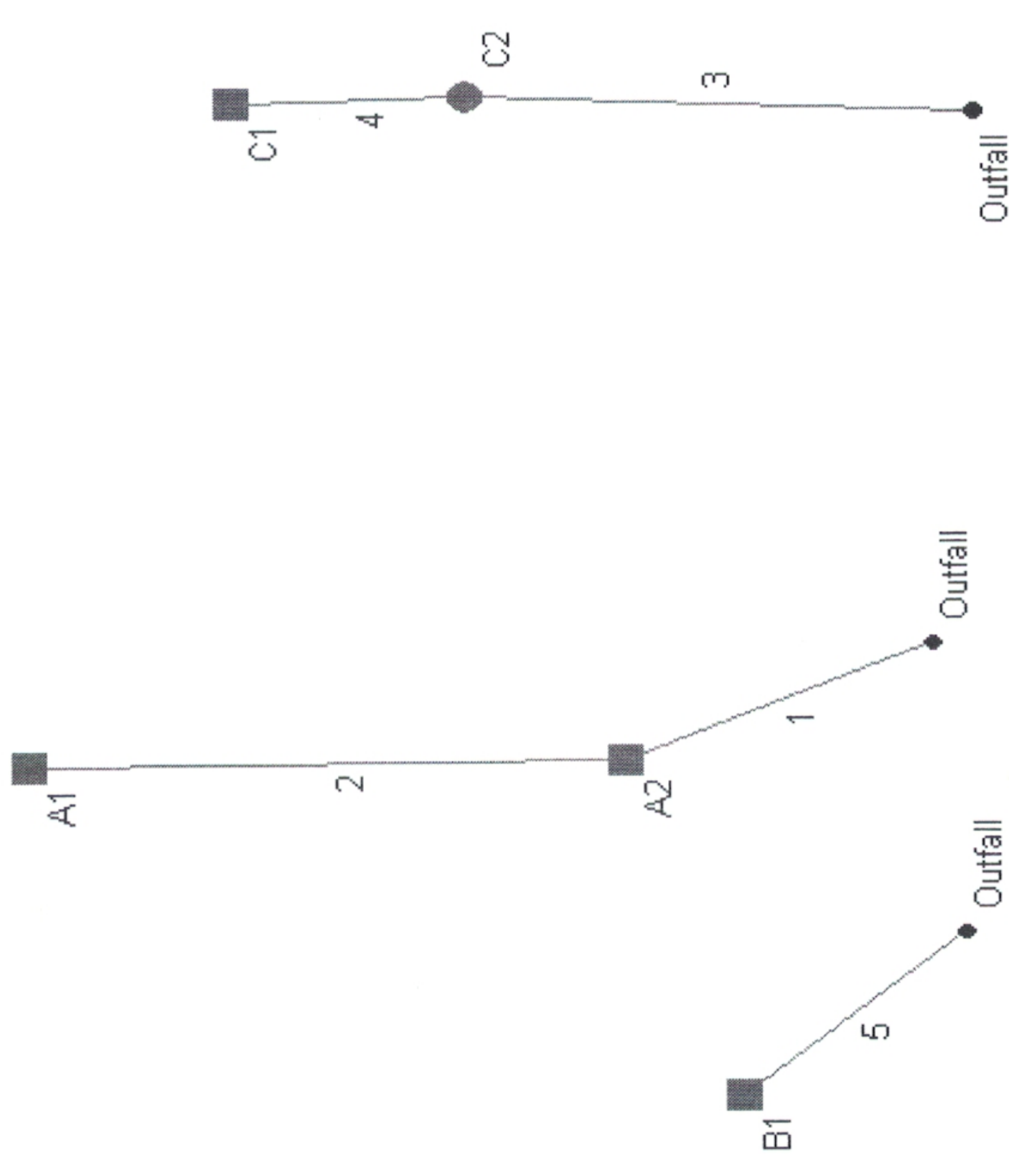
Pipe Summary:

The analysis uses a “C” value of 0.95 for the pavement. Time of concentration of 5 minutes is considered in the review and the drainage areas noted in the Hydrflow data.

The pipes were reviewed using a Q25 flow and the HGL is within the pipe network system and are sized appropriately.

Hydraflow Plan View

Rolesville
South Main
Q25 HGL



Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line size (in)	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line slope (%)	HGL down (ft)	HGL up (ft)	Minor loss (ft)	Dns line No.
1	A2-A3	2.70	12 c	40.0	409.00	409.30	0.750	409.70	410.05	0.20	End
2	A1-A2	1.60	12 c	72.0	409.50	410.70	1.667	410.25	411.24	0.22	1
3	C2C3	2.40	12 c	89.0	409.00	409.44	0.494	409.71	410.25	0.03	End
4	C1-C2	2.41	12 c	28.0	409.64	409.78	0.500	410.42	410.56	0.21	3
5	B1-B2	0.62	12 c	11.5	409.00	409.30	2.609	409.33	409.63	0.11	End

Project File: Rolesville Massey Revised 1.gpw.stm

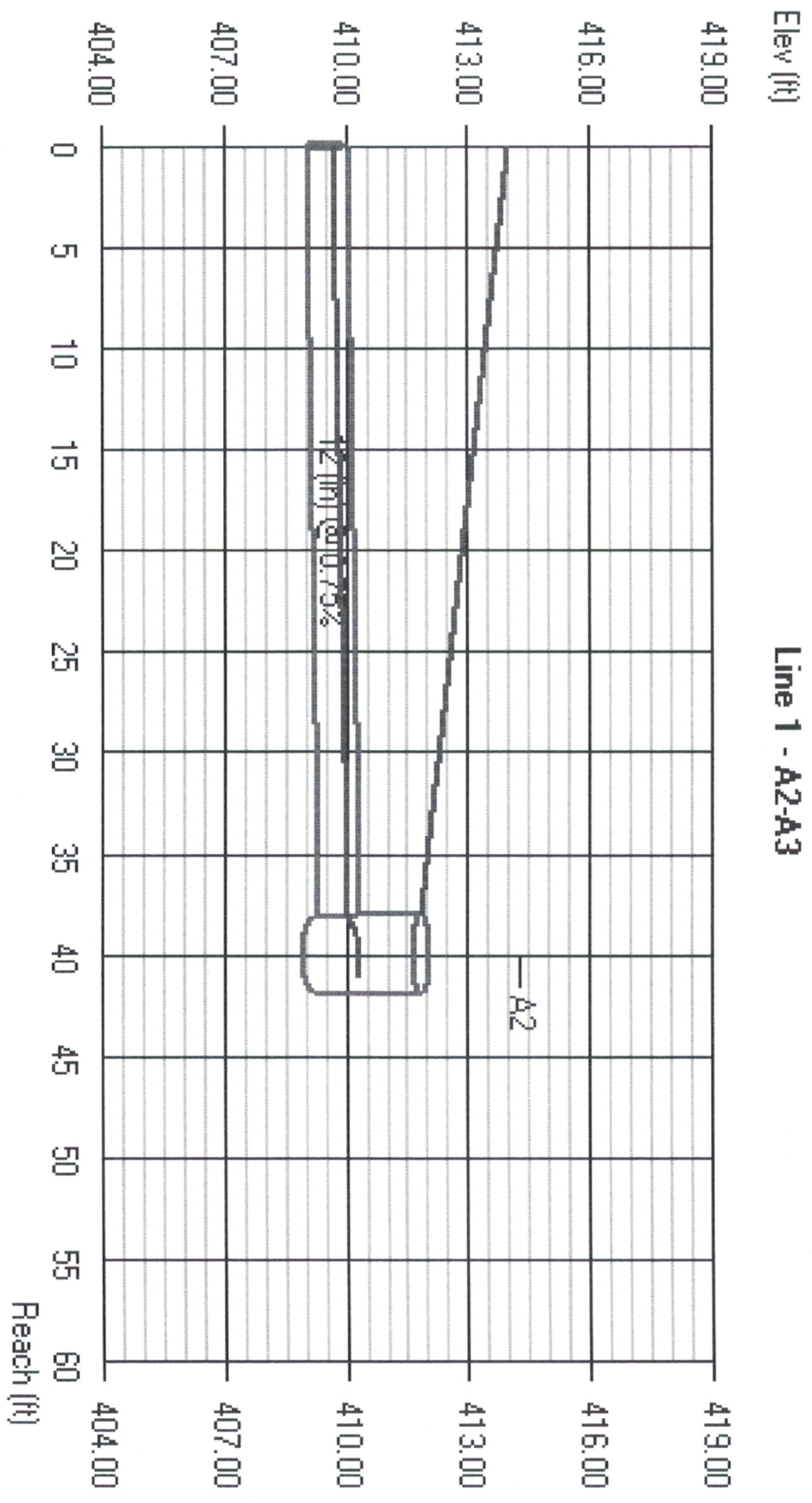
Number of lines: 5

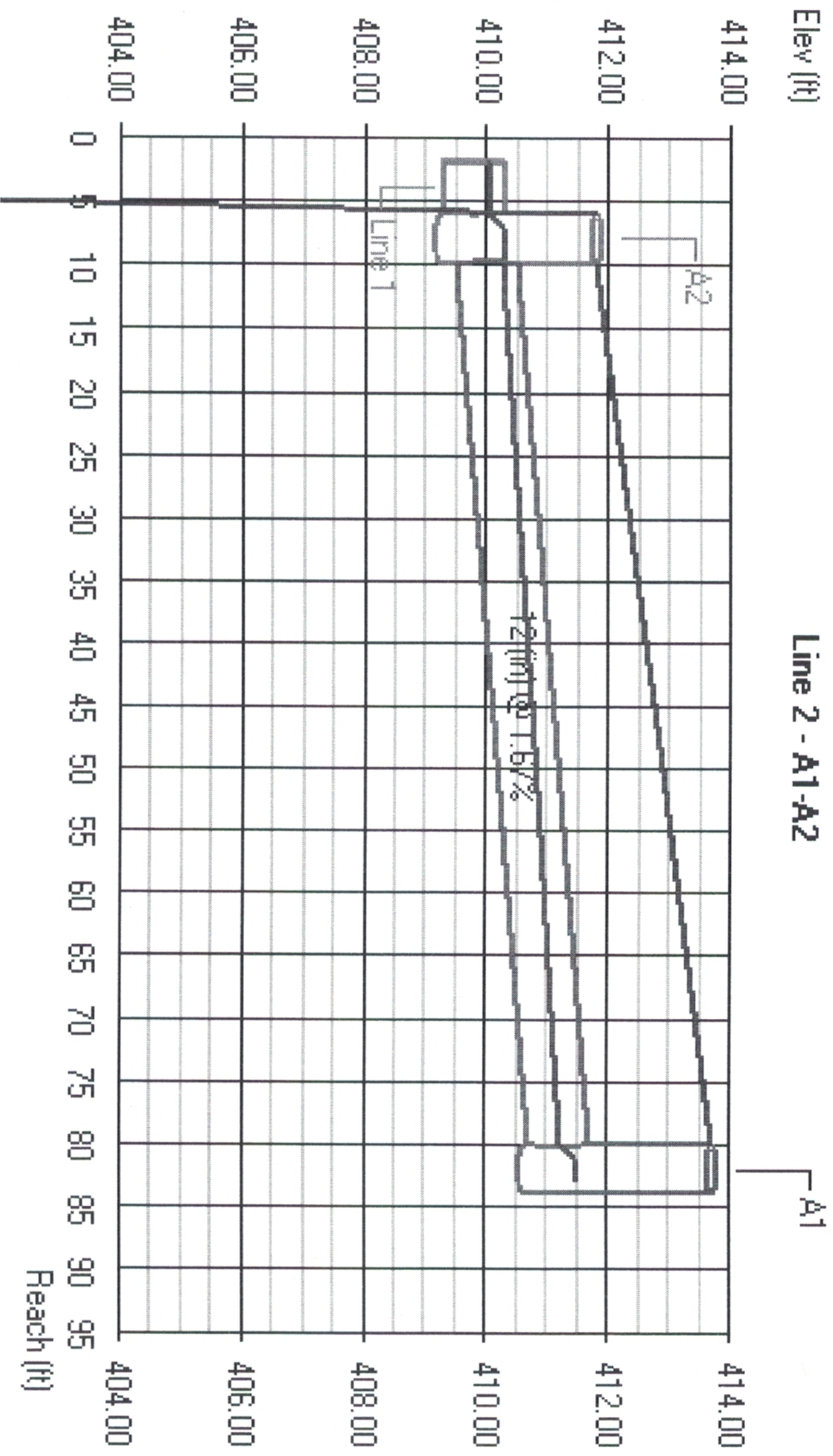
Run Date: 09-29-2022

NOTES: c = circular; e = elliptical; b = box; Return period = 25 Yrs.; * Indicates surcharge condition.

Storm Sewer Profile

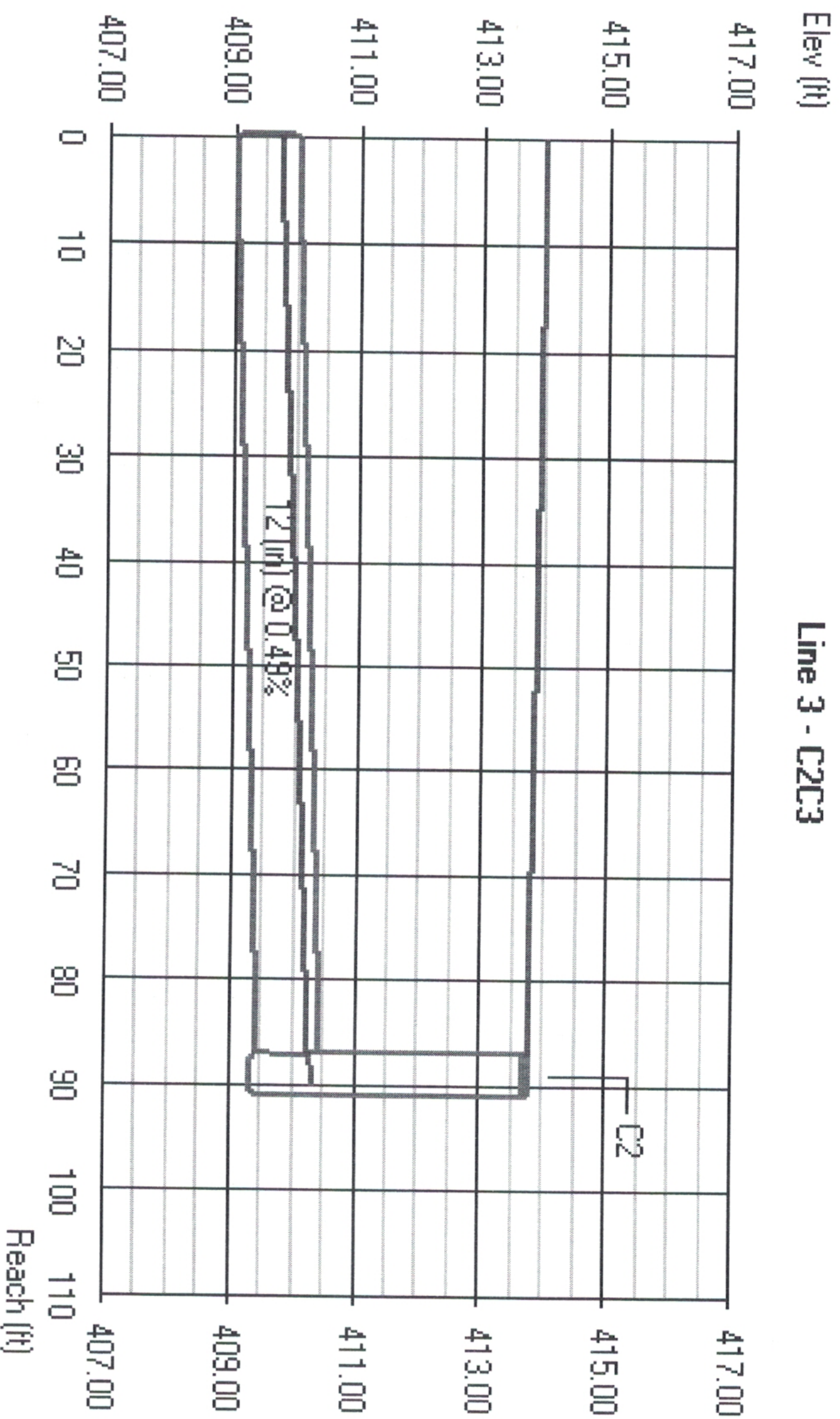
Proj. file: Rolesville Massey Revised 1.gpw.stm





Storm Sewer Profile

Proj. file: Rolesville Massey Revised 1.gpw.stm

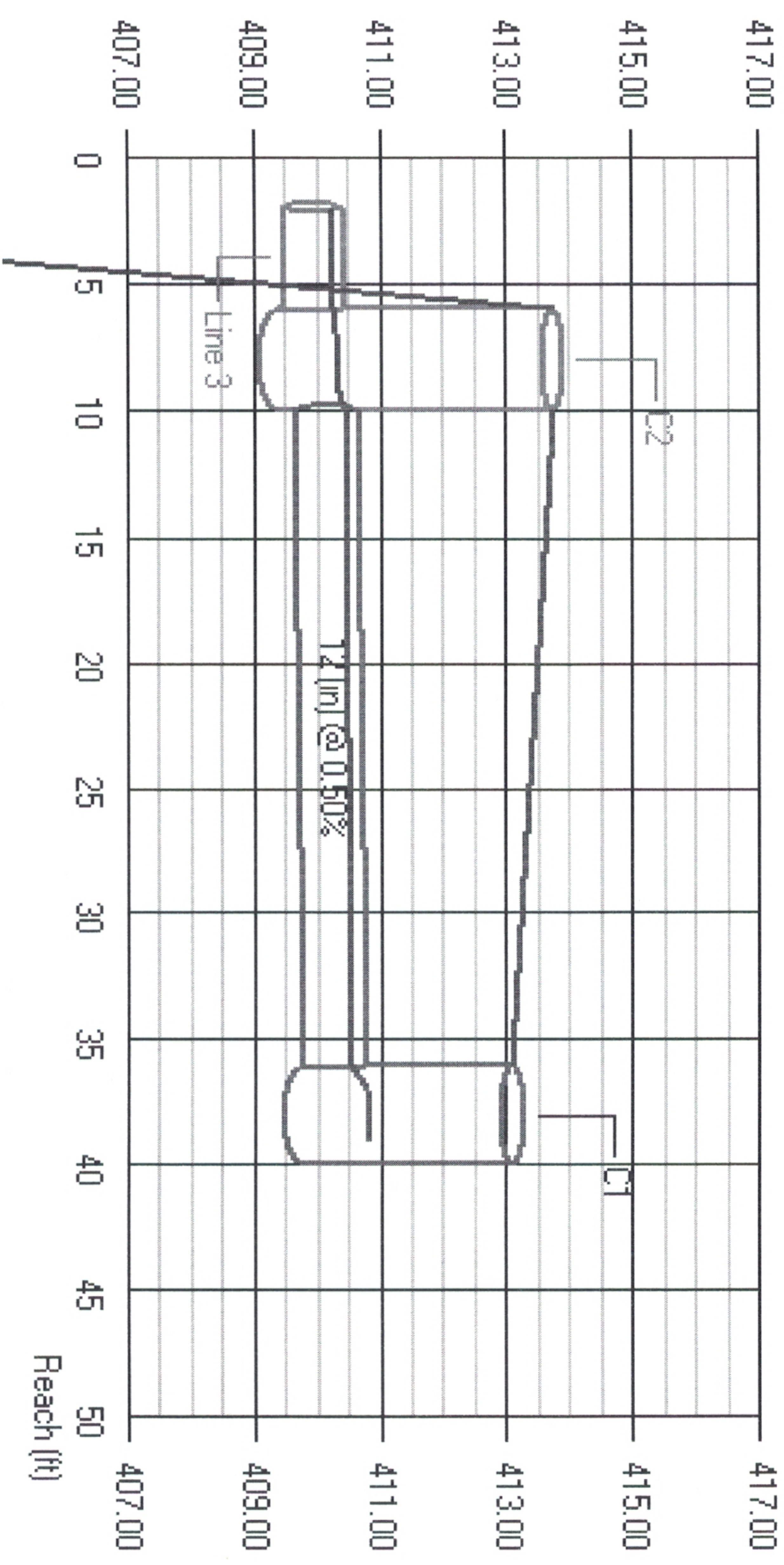


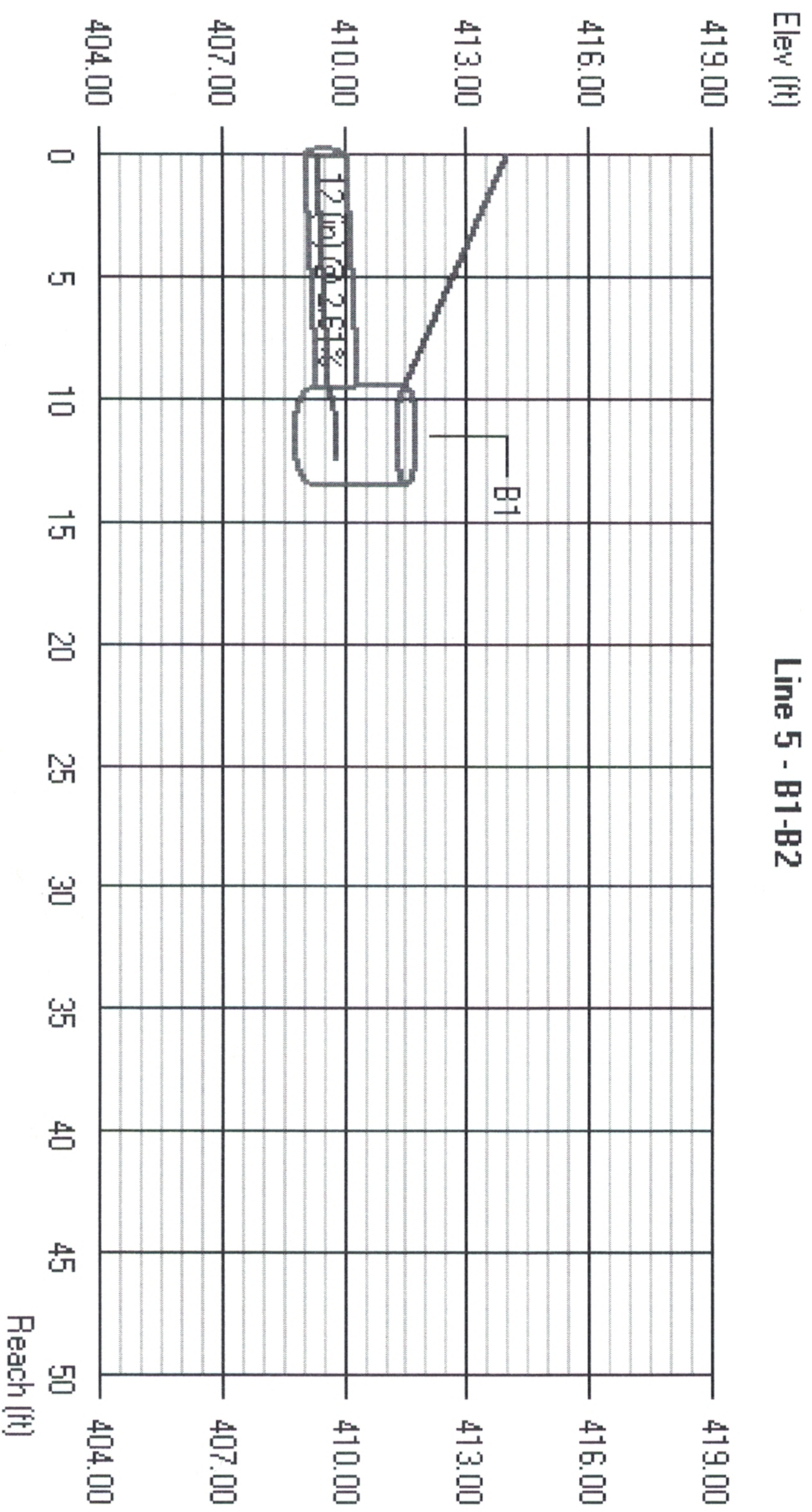
Storm Sewer Profile

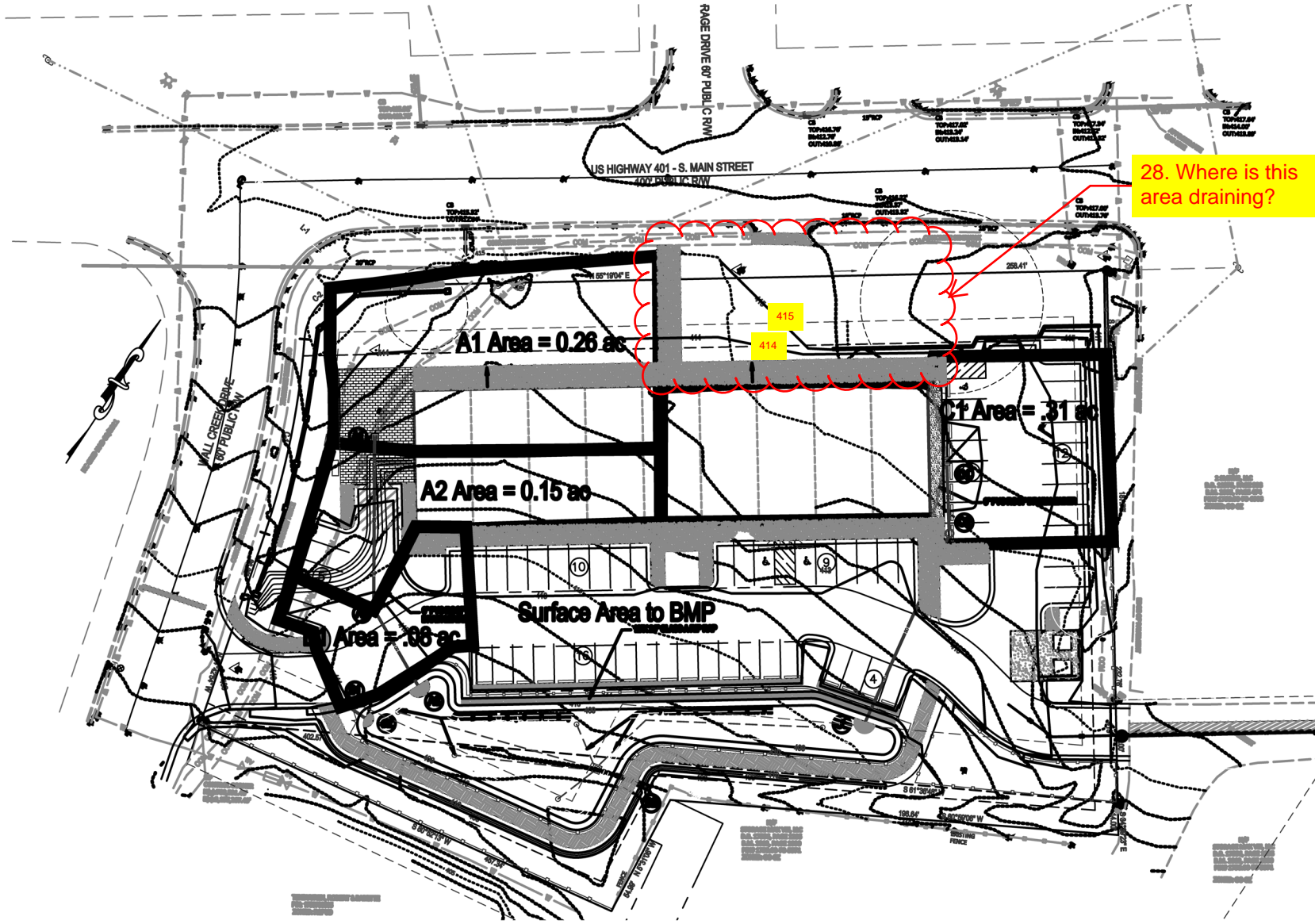
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Elev (ft)

Line 4 - C1-C2







Gettle Engineering and Design, PLLC

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Wake Forest, North Carolina 27607
(919) 210-9894 Firm License P-2538

PRELIMINARY
DO NOT USE FOR
CONSTRUCTION

NO.	REVISION	DATE	BY	APP.
1	ISSUE FOR PERMIT			
2	REVISED			
3	ISSUE FOR PERMIT			
4	REVISED			
5	ISSUE FOR PERMIT			
6	REVISED			
7	ISSUE FOR PERMIT			
8	REVISED			
9	ISSUE FOR PERMIT			
10	REVISED			
11	ISSUE FOR PERMIT			
12	REVISED			
13	ISSUE FOR PERMIT			
14	REVISED			
15	ISSUE FOR PERMIT			
16	REVISED			
17	ISSUE FOR PERMIT			
18	REVISED			
19	ISSUE FOR PERMIT			
20	REVISED			

Drainage Areas - Storm Drain
South Main Street
503 South Main Street
Rolesville, Wake County, North Carolina

Project No. XXXXX
Dwg No. **EX2**